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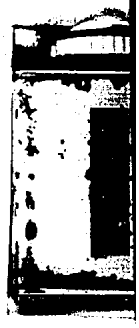

REPORT BY USSR DELEGATION ON CZECHOSLOVAK EPIDEMIOLOGICAL CONFERENCE

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Academician Ye. Pavlovskiy,
Prof N. Olsuf'yev, and V. Anan'in,
Candidate of Medical Sciences

The study of natural reservoirs of infectious diseases began in Czechoslovakia in 1950. To make the first evaluation of the activities of scientists in this field, a conference was held in Bratislava at the end of 1954. The conference, dealing with problems of the natural reservoirs of diseases affecting human beings and domestic animals, was organized by the Biological Section of the Czechoslovak Academy of Sciences and the Slovak Academy of Sciences. Attending the conference were 350 workers in the medical and biological fields and persons active at public health and veterinary institutions. As members of the USSR delegation, we also participated.

General problems of medical zoology and parasitology connected with the theory of the natural reservoirs of diseases and problems of the control of individual infections (tick encephalitis, leptospirosis, tularemia, etc.) were discussed. Academician I. Malek, chairman of the Biological Section of the Czechoslovak Academy of Sciences, said in his opening address that diseases which have natural reservoirs must be thoroughly studied. In the first report, presented by Academician Ye. N. Pavlovskiy, the role of the ecological method in parasitology and of the ecologico-parasitological method in the investigation of diseases having natural reservoirs was elucidated. A subsequent report contained information on the achievements and tasks of Czechoslovak parasitology (B. Rosicky) and of Czechoslovak medical zoology (I. Kratochvil) in the solution of the problems of natural reservoirs of diseases occurring in the Czechoslovak Republic.

Originally, it was mistakenly assumed that in a civilized and densely populated country, such as Czechoslovakia diseases characterized by the existence of natural reservoirs cannot exist.

However, specialists in the field decided to make investigations to clarify the question. A favorable condition for such investigations was that the terrain in Czechoslovakia varies widely in vegetation and fauna. There are many wild animals (hares, roes, and deer), and rodents and insectivorous animals are common. It was certain that among these animals diseases must have originated which are of importance for human beings.

As a result of many scientific investigations conducted by epidemiologists, microbiologists, clinicists, parasitologists, and zoologists, it was soon established that natural reservoirs of a number of infectious diseases exist in the country. The prevalence of many species of Ixodidae ticks, fleas, mosquitoes, and other arthropodes was established. A considerable section of the fauna, which often functions as a factor in transmitting diseases that have natural reservoirs and consists of rodents and insectivorous animals, was investigated. Methods were developed for rendering harmless the natural reservoirs of diseases, thus contributing to the elimination of such infections.

Reports dealing with individual infectious diseases attracted the attention of participants at the conference.

J. Libikova of the Institute of Virology, Czechoslovak Academy of Sciences, presented data on virus infections. During the period 1952-53, reservoirs of equine encephalomyelitis, lymphocytic choriomeningitis, and two-wave tick encephalitis were found. The impression arose that tick encephalitis might be transmitted by the milk of infected goats.

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E. Kmety of the Medical Faculty, Slovak University, discussed natural reservoirs of jaundice-free leptospiroses. It was established that the principal carriers of such infections are voles, forest mice, and yellow-throated mice [Apodemus flavicollis], as well as other small mammals (17 species altogether).

V. Jelinek presented information on leptospiroses affecting farm animals.

Great interest was elicited among the participants by reports on the distribution of Q fever in Slovakia (R. Brezina) and reports on the natural reservoirs of this disease (L. Syrucek, K. Raska, and others). In the opinion of the Czechoslovak scientists, Q fever may easily penetrate into the natural environment. That it has spread under the natural conditions obtaining in Czechoslovakia was confirmed by serological tests for the presence of the causative factor: positive reactions were obtained in the examination of roes, deer, gray rats, aquatic rats [Arvicola terrestris], foxes, and various species of wild birds.

A paper on the natural reservoirs of tularemia contained much interesting information. The fact that brucellae were detected in hares is interesting.

We were interested in a report by O. Havlik dealing with the natural reservoirs of such diseases as pneumocystosis and toxoplasmosis, which have not been investigated extensively hitherto. The causative factors of these diseases are supposed to be protozoa. In addition to affecting human beings, toxoplasmosis, was established to be an infection of the European suslik [Citellus citellus], hare, squirrel, wood grouse, and patridge. It has been found in Czechoslovakia that up to 20% of schizophrenics suffer from toxoplasmosis.

The interrelationship of the diseases of domestic animals and of human beings at natural foci of the diseases was discussed in a paper presented by F. Niznansky and K. Raska. The parasitic diseases of economically useful fish were discussed by Docent V. Dyk. Dr V. Valenta spoke on the virus diseases of cultural plants.

The members of the Soviet delegation presented reports at the meeting. N. G. Olsuf'yev presented information on the natural reservoirs of tuleremia, erysipeloid, and listerellosis, V. V. Anan'yin gave a report on the natural reservoirs of leptospiroses.

The success achieved by Czechoslovak scientists in work on problems pertaining to natural reservoirs of diseases is striking proof of the general progress of science in Czechoslovakia. Before the war, there were hardly ten physicians in the country doing scientific work in biology and medical microbiology. The means made available by the bourgeois state for scientific work were very meager. Science was entirely removed from the people.

The regime of the People's Democracy assured a progress of science which was many-sided and rapid. New scientific centers were created. As a successor of the former academy, the Czechoslovak Academy of Sciences was founded in Prague. The Slovak Academy of Sciences was organized in Bratislava.

The Institute of Biology (of the Czechoslovak Academy of Sciences), headed by Academician I. Malek, is doing intensive work. Much work is also being done by the Institute of Virology at Prague directed by Academician D. Blaskevic, by the Agricultural Institute at Brno, and by the institutes of epidemiology and microbiology in Prague, Bratislava, and other cities.

An extensive network of sanitary-epidemiological stations has been organized. These stations not only work on practical problems of public health, but also aid scientific institutions in work on a number of problems.

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By participating in the conference and by learning of the activity of new institutions and chairs of universities which have been active for some time in the fields that are of interest to us, we became convinced that these institutions can solve the most important problems in medicine and biology. As a rule, they are well equipped, have highly qualified personnel, and may point to significant scientific achievements.

In the field of prophylactic medicine, progress is apparent in the prevention of pediatric diseases, of tuberculosis, and of other infections. Many important problems are being studied such as the modifiability of microorganisms and the biochemistry of viruses.

The number of scientific publications and the volume of individual publications have increased. Not only have numerous monographs been published in the fields of epidemiology and microbiology, but the problems involved in these branches of medicine are extensively but treated in eight journals published in Prague, Bratislava, and Brno. Popular pamphlets dealing with intestinal and other infections are published on a large scale.

Czechoslovak scientists make extensive use of the experience of Soviet science. They attentively follow Soviet periodicals, publish abstracts of papers written by Soviet authors, and quote these authors in their work. A series of books called "Soviet Science" is being published. The books in this series contain translations of that work by Russian authors of the greatest interest to Czechoslovak scientists. Visits being made to Czechoslovakia by Soviet scientists as well as visits by Czechoslovak scientists to the Soviet Union contribute to an exchange of scientific information and experience. Such visits also reinforce the cultural collaboration between the two countries. The scientific workers with whom we talked during our visits to many institutions of the Czechoslovak and Slovak Academies of Sciences referred to the necessity of expanding this collaboration, particularly in regard to the regular exchange of publications. The same point was mentioned by Academician Z. Nejedly, president of the Czechoslovak Academy of Sciences.

Our recollection of the friendly attitude with which we were met by our friends in Czechoslovakia is most pleasant.

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